

MAY 1 1 1973

PRESENTATION FOR DELIVERY BY W.P. WILDER,
CHAIRMAN, CANADIAN ARCTIC GAS STUDY LTD., TO
THE ANNUAL MEETING, INVESTMENT SECTION, THE
CANADIAN LIFE INSURANCE ASSOCIATION
-- TORONTO -- MAY 3RD, 1973

WHEN I WAS ASKED LAST NOVEMBER BY ROSS PERIGOE TO SPEAK TONIGHT,
I HAD LITTLE DIFFICULTY IN REACHING A DECISION. IN THE FIRST
INSTANCE, THERE APPEARED AMPLE TIME TO PREPARE A SPEECH, AND
SECOND, WHAT A WONDERFUL AUDIENCE.

THE INFORMATION I HAVE BEEN SUPPLIED WITH INDICATES THAT ASSETS
HELD IN CANADA ON BEHALF OF 11 MILLION CANADIAN LIFE INSURANCE
POLICYHOLDERS AMOUNTED TO NEARLY \$17 BILLION AT THE END OF 1971.
AN ADDITIONAL \$6 BILLION IS INVESTED IN CANADA ON BEHALF OF U.S.
POLICYHOLDERS, FOR A TOTAL LIFE INSURANCE INVESTMENT IN CANADA OF
MORE THAN \$23 BILLION.

ABOUT FIVE PERCENT OF THIS, OR MORE THAN \$1 BILLION, IS, I UNDER-
STAND, INVESTED IN THE PETROLEUM AND PIPELINE INDUSTRIES. THIS
INCLUDES SOME \$550 MILLION ON BEHALF OF CANADIAN POLICYHOLDERS,
AND AT LEAST AN ADDITIONAL HALF BILLION DOLLARS ON BEHALF OF
U.S. POLICYHOLDERS. HAVING IN MIND A \$5 BILLION CAPITAL REQUIRE-
MENT TO FINANCE A PIPELINE TO TRANSPORT NATURAL GAS FROM NORTHERN
CANADA AND ALASKA, I HOPE THAT YOU WILL START THINKING OF INCREASING
YOUR PROPORTION OF ASSETS IN THE ENERGY FIELD AND THAT I AM PROVIDING
YOU SUFFICIENT LEAD TIME IN TERMS OF DEDICATING YOUR CASH FLOW.

IN THIS REGARD, IT IS MOST ENCOURAGING TO NOTE THE RAPID GROWTH
OF FUNDS INVESTED ON BEHALF OF CANADIAN POLICYHOLDERS IN CANADIAN
CORPORATE BONDS AND STOCKS. I BELIEVE THIS NOW AMOUNTS TO ABOUT

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\$5.5 BILLION. THE NET AMOUNT INVESTED JUST LAST YEAR IN CORPORATE BONDS AND STOCKS WAS IN THE ORDER OF HALF A BILLION DOLLARS -- MORE THAN THREE TIMES THE AMOUNT INVESTED IN 1969.

THIS IMPRESSIVE AND RAPIDLY GROWING ACCUMULATION OF CANADIAN SAVINGS BEING CHANNELLED INTO CANADIAN FIRMS SHOULD PROVE REASSURING TO THOSE CONCERNED ABOUT OUR ABILITY TO FINANCE ECONOMIC GROWTH AND ACHIEVE GREATER CANADIAN OWNERSHIP OF OUR INDUSTRIAL SECTOR.

THIS GROWING ACCUMULATION OF CANADIAN SAVINGS WHICH YOU GENTLEMEN REPRESENT IS OF CONSIDERABLE INTEREST TO ARCTIC GAS. WE ARE HOPEFUL THAT IT WILL BE A SIGNIFICANT FACTOR IN ACHIEVING MAJORITY CANADIAN OWNERSHIP OF THE LARGEST SINGLE PROJECT TO BE FINANCED BY PRIVATE CAPITAL.

A PROJECT OF THIS MAGNITUDE WILL INESCAPABLY HAVE A SIGNIFICANT IMPACT ON THE CANADIAN ECONOMY. AND BECAUSE THERE CAN BE FEW, IF ANY, GROUPS WITH A GREATER INTEREST IN THE COUNTRY'S ECONOMIC WELL-BEING THAN THE LIFE INSURANCE INDUSTRY WITH ITS 11 MILLION CANADIAN POLICYHOLDERS, THIS PROJECT MUST BE OF VITAL INTEREST TO YOU.

LET ME OUTLINE SOME OF THE BACKGROUND OF ARCTIC GAS, AND THE REASONS THAT LEAD US TO CONCLUDE THAT A PIPELINE TO TRANSPORT NATURAL GAS FROM THE NORTH SLOPE OF ALASKA AND THE MACKENZIE DELTA, IS IMPORTANT TO CANADA'S INTEREST.

ARCTIC GAS COMPRISES 25 LARGE PARTICIPATING FIRMS, OF WHICH 10

ARE MAJORITY CANADIAN-OWNED, AND WITH SUBSTANTIAL CANADIAN EQUITY INVESTMENT IN FOUR OTHERS.

STARTING WITH THE FIRST PRELIMINARY FEASIBILITY STUDIES, ARCTIC GAS RESEARCH WORK HAS NOW BEEN UNDERWAY FOR MORE THAN FIVE YEARS, AND EXPENDITURES TO-DATE TOTAL SOME \$30 MILLION. THE OBJECTIVE HAS BEEN TO EXAMINE IN DETAIL EVERY ASPECT OF THE ENGINEERING, ECONOMIC AND ENVIRONMENTAL FEASIBILITY OF THE PIPELINE. IN ADDITION TO ITS OWN TECHNICAL STAFF OF NEARLY 100, ARCTIC GAS EMPLOYS SOME 30 CONSULTANTS AND RESEARCH ORGANIZATIONS ON ITS WIDE RANGE OF STUDY PROGRAMS.

IT IS OUR INTENT TO FILE WITH U.S. AND CANADIAN REGULATORY AUTHORITIES AS SOON AS WE HAVE OBTAINED FROM OUR STUDIES ALL OF THE INFORMATION WE FEEL IS REQUIRED TO PROPERLY SUPPORT APPLICATIONS FOR APPROVAL TO CONSTRUCT AND OPERATE THE PROPOSED PIPELINE. WE HOPE TO FILE OUR APPLICATIONS THIS YEAR.

IF WE ENCOUNTER NO DELAYS, WE MIGHT ANTICIPATE FINAL APPROVALS WITHIN 18 MONTHS OF OUR FILINGS, FOLLOWING EXHAUSTIVE PUBLIC HEARINGS AND EXAMINATION BEFORE GOVERNMENT BODIES IN BOTH CANADA AND THE UNITED STATES.

BY THE TIME WE CAN HOPE TO HAVE RECEIVED THESE APPROVALS WE EXPECT THAT WE WILL HAVE SPENT MORE THAN SEVEN YEARS AND IN EXCESS OF \$60 MILLION FOR OUR STUDIES, REGULATORY PROCEEDINGS, AND PRE-CONSTRUCTION ENGINEERING. ANOTHER TWO YEARS WOULD BE REQUIRED FOR CONSTRUCTION OF THE PIPELINE AS FAR AS THE MACKENZIE DELTA, WITH A THIRD REQUIRED FOR EXTENSION TO PRUDHOE BAY. IN THE

NORTH, CONSTRUCTION WORK WILL BE LIMITED TO A WINTER SEASON OF ABOUT FOUR MONTHS. AFTER THE START OF INITIAL GAS DELIVERIES THROUGH THE FULL PIPELINE SYSTEM, WHICH AT THE EARLIEST WOULD BE THE SPRING OF 1978, WE WILL REQUIRE ANOTHER TWO YEARS TO INSTALL ADDITIONAL COMPRESSOR HORSEPOWER BEFORE ACHIEVING FULL DELIVERABILITY CAPACITY OF MORE THAN FOUR BILLION CUBIC FEET OF GAS PER DAY FOR A SINGLE 48-INCH DIAMETER PIPELINE. THE ESTIMATED COST TO INITIALLY INSTALL THE PIPELINE IS \$3.5 BILLION, WITH A FURTHER \$1.5 BILLION REQUIRED FOR ADDITIONAL COMPRESSOR STATIONS.

CANADA IS THE ONLY INDUSTRIALIZED NATION IN THE FREE WORLD THAT IS TODAY SELF-SUFFICIENT IN ENERGY. WE HAVE MOREOVER, AMPLE POTENTIAL SUPPLIES TO MAINTAIN THIS SELF-SUFFICIENCY FOR AS LONG AS WE CAN ANTICIPATE THAT OUR PRESENT FORMS OF FUEL WILL PROVIDE THE BULK OF OUR ENERGY NEEDS. THIS ASSUMES, HOWEVER, THAT WE CAN MEET THE CHALLENGE OF DEVELOPING AND MAKING THIS POTENTIAL ENERGY AVAILABLE AS IT IS REQUIRED. AT A TIME WHEN THE UNITED STATES, EUROPE AND JAPAN ALL FACE THE NEED TO IMPORT SHARPLY EXPANDING VOLUMES OF ENERGY AT RAPIDLY ESCALATING PRICES, CANADA MIGHT WELL BE THE ENVY OF THE WORLD.

WHEN WE TALK OF ENERGY IN TODAY'S CONTEXT, WE ARE REFERRING PRIMARILY TO FOSSIL FUELS -- OIL, NATURAL GAS AND COAL -- WHICH SUPPLY 90 PERCENT OF REQUIREMENTS. GIVEN OUR HISTORIC POLICY OF LIMITING ENERGY EXPORTS TO SUPPLIES SURPLUS TO OUR OWN NEEDS, IT IS DIFFICULT TO FORESEE A SHORTAGE OF POTENTIAL FOSSIL FUEL RESERVES IN THIS NATION. IN A QUARTER CENTURY OF ACTIVE EXPLORATION, WE HAVE ONLY DISCOVERED 15 PERCENT OF THE ESTIMATED POTENTIAL

SUPPLIES OF CONVENTIONAL CRUDE OIL AND NATURAL GAS, AND WE HAVE PRODUCED ONLY ABOUT 4 PERCENT. IF RESERVES OF COAL, AND OIL FROM THE ATHABASCA TAR SANDS ARE INCLUDED, OUR PROVEN AND PROJECTED FOSSIL FUEL RESERVES ARE ESTIMATED AT AN EQUIVALENT OF MORE THAN 500 YEARS OF SUPPLY AT THE PROJECTED 1990 RATE OF DEMAND.

BUT WE CANNOT CONSUME POTENTIAL ENERGY. UNLESS WE CONTINUE TO DEVELOP OUR ENERGY AT AN ADEQUATE RATE, WE COULD FACE SHORTAGES OF AVAILABLE DOMESTIC ENERGY WITHIN A VERY FEW YEARS. CANADA'S INDUSTRIAL ECONOMY REQUIRES THE CONTINUED DEVELOPMENT AND SUPPLY OF ENERGY. TRILLIONS OF CUBIC FEET OF NATURAL GAS IN THE MACKENZIE DELTA WON'T FUEL A SINGLE FACTORY OR HEAT A SINGLE HOME UNTIL THIS GAS HAS BEEN FOUND AND THE FACILITIES INSTALLED TO PRODUCE AND TRANSPORT IT ACROSS HALF A CONTINENT. CONTINUITY OF SUPPLY IS ESSENTIAL AND A MATTER OFTEN OVERLOOKED.

WHEN WE LOOK AT THE NATION'S PETROLEUM RESOURCES, WE FIND THAT MORE THAN 90 PERCENT OF THE OIL AND GAS RESERVES DISCOVERED TO-DATE LIE IN THE FOUR PROVINCES OF WESTERN CANADA, AND PRIMARILY IN ALBERTA. YET WESTERN CANADA ACCOUNTS FOR LESS THAN ONE-QUARTER OF THE TOTAL POTENTIAL RESERVES WHICH GEOLOGISTS BELIEVE ARE AVAILABLE FOR DISCOVERY. WE ARE NOW PROVIDING ALL OF OUR PETROLEUM NEEDS, PLUS A NET EXPORT, FROM A SOURCE THAT REPRESENTS ONE-QUARTER OF OUR POTENTIAL SUPPLY.

WE ARE APPROACHING THE TIME THAT WE MUST START TO TAP THE OTHER 75 PERCENT OF OUR POTENTIAL, WHICH LIES PRIMARILY IN THE ARCTIC AND OFFSHORE REGIONS, IF WE ARE TO ENSURE THE CONTINUED AVAILABILITY

supplies of conventional crude oil and natural gas, and we have produced only about 11 percent. If reserves of coal and oil in the Athabasca tar sands are included, our proven and projected fossil fuel reserves are estimated at an equivalent of more than 200 years of supply at the projected 1990 rate of demand.

But we cannot consume potential energy. Unless we continue to develop our energy at an adequate rate, we could face shortages of available domestic energy within a very few years. Canada's industrial economy requires the continued development and supply of energy. Billions of cubic feet of natural gas in the Mackinac Delta won't fuel a single factory or heat a single home until this gas has been found and the facilities installed to produce and transport it across half a continent. Continuity of supply is essential and a matter often overlooked.

When we look at the nation's petroleum resources, we find that more than 90 percent of the oil and gas reserves discovered to date lie in the four provinces of western Canada, and primarily in Alberta. Yet western Canada accounts for less than one-quarter of the total potential reserves which geologists believe are available for discovery. We are now providing all of our petroleum needs, plus a net export, from a source that represents one-quarter of our potential supply.

We are approaching the time that we must start to tap the other 75 percent of our potential, which lies primarily in the Arctic and offshore regions, if we are to ensure the continued availability

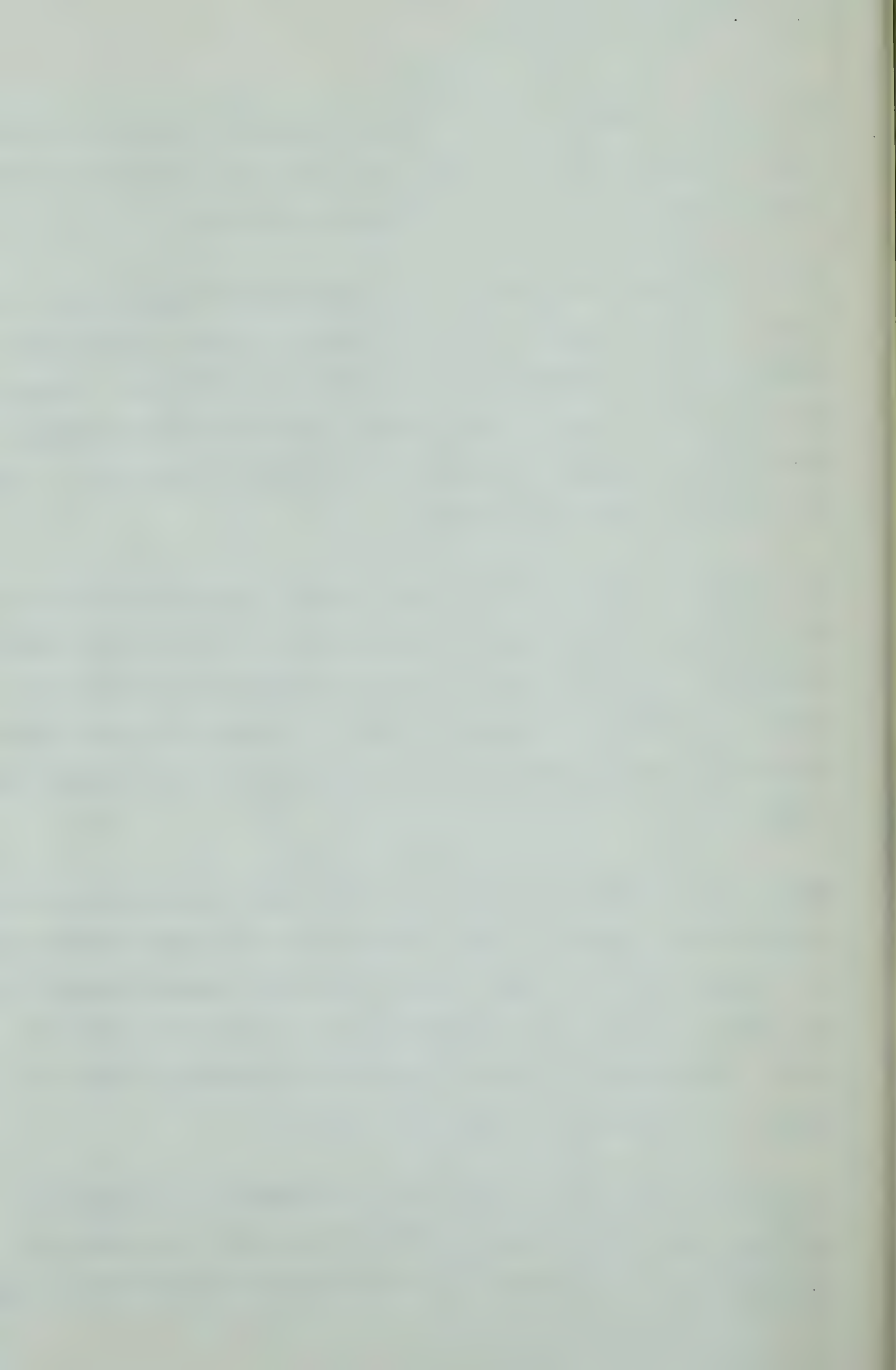
OF ADEQUATE ENERGY SUPPLIES. AND CONSIDERING, AGAIN, THE LONG LEAD TIMES REQUIRED, WE CANNOT DELAY TOO LONG IN FIRING UP OUR PLANS TO TAP THESE FRONTIER PETROLEUM RESOURCES.

THE OPPORTUNITY EXISTS NOW TO TAKE ADVANTAGE OF GROWING U.S. DEMAND FOR OIL AND GAS IMPORTS IN SUCH A WAY AS TO MAKE ECONOMICALLY FEASIBLE THE DEVELOPMENT AND UTILIZATION OF OUR ARCTIC PETROLEUM RESOURCES. THE SCALE OF DEVELOPMENT REQUIRED TO ECONOMICALLY TAP THESE RESOURCES IS SUCH THAT IT CAN BE PROVIDED ONLY BY ACCESS TO THE MUCH LARGER U.S. MARKETS.

OUR PROPOSED ARCTIC GAS PIPELINE FROM THE ALASKA NORTH SLOPE AND THE MACKENZIE DELTA, ILLUSTRATES THIS WELL. AT FULL COMPRESSOR HORSEPOWER, THE \$5 BILLION, 48-INCH DIAMETER PIPELINE WILL BE ABLE TO DELIVER GAS TO CANADIAN AND U.S. MARKETS AT A RATE ABOUT ONE-THIRD GREATER THAN THE PRESENT TOTAL RATE OF GAS DEMAND IN CANADA.

ANNUAL DEMAND GROWTH IN CANADA IS ABOUT ONE-EIGHTH OF THE PIPELINE CAPACITY, BUT THERE IS NO WAY YOU CAN SAVE UP DEMAND GROWTH UNTIL YOU REACH A POINT THAT YOU CAN SAY "NOW THE CANADIAN MARKET IS BIG ENOUGH TO MAKE THE PIPELINE VIABLE." THE FACT IS THAT WE CANNOT ECONOMICALLY REACH OUR ARCTIC GAS RESOURCES WITHOUT THE ECONOMIES OF SCALE OF THE BIG U.S. MARKET.

IT IS NOT JUST THE U.S. MARKET THAT IS NECESSARY TO MAKE THIS PIPELINE ECONOMICALLY VIABLE, BUT ALSO THE U.S. GAS SUPPLY ON THE NORTH SLOPE OF ALASKA. WE ANTICIPATE THAT ABOUT HALF OF THIS



FLOW OF FOUR BILLION CUBIC FEET PER DAY WILL BE U.S. GAS FROM ALASKA, AND HALF FROM THE MACKENZIE DELTA. ALL OF THE ALASKAN GAS, AND A SUBSTANTIAL PORTION OF THE INITIAL FLOW OF CANADIAN GAS WILL BE DESTINED FOR U.S. MARKETS.

WHAT WOULD HAPPEN IF THE U.S. GAS WERE NOT AVAILABLE TO THIS PIPELINE? IT WOULD MEAN THAT WE WOULD HAVE TO PROVE UP TWICE AS MUCH GAS RESERVES ON THE CANADIAN SIDE IN ORDER TO PROVIDE THE REQUIRED SUPPLY; AND EXPORT SUBSTANTIALLY MORE CANADIAN GAS IN ORDER TO ACHIEVE THE REQUIRED MARKET VOLUME. IT IS THE U.S. CONSUMERS AND U.S. GAS SUPPLY WHICH WILL HELP MAKE THE PROJECT FEASIBLE AND THEREFORE ENABLE US IN CANADA TO UTILIZE THESE LARGE RESOURCES OF THE NORTH FOR OUR OWN FUTURE NEEDS.

ONCE THE PIPELINE IS BUILT, ITS CAPACITY COULD BE INCREASED IN STAGES IN STEP WITH MARKET DEMAND GROWTH, BY MEANS OF INCREMENTAL LOOPING WITH ADDITIONAL 48-INCH DIAMETER PIPE. THIS MEANS THAT AFTER THE INITIAL EXPORT COMMITMENT REQUIRED TO GET THE SYSTEM BUILT, THE REMAINING POTENTIAL GAS RESERVES IN THE NORTHERN CANADA MAINLAND WOULD BE ECONOMICALLY AVAILABLE TO SERVE CANADIAN NEEDS EXCLUSIVELY, IF REQUIRED. A CONSERVATIVE ESTIMATE OF THE POTENTIAL GAS RESERVES OF NORTHERN CANADA, EXCLUDING THE ARCTIC ISLANDS, PLACES THE TOTAL AT SOME 100 TRILLION CUBIC FEET.

FOR CANADA, THE BENEFITS OF THE PIPELINE WILL INCLUDE:

1. ECONOMIC ACCESS TO A LARGE NEW SUPPLY SOURCE TO HELP MEET FUTURE CANADIAN GAS REQUIREMENTS;

2. HUNDREDS OF MILLIONS OF DOLLARS IN DIRECT GOVERNMENT REVENUES FROM PRODUCTION ROYALTIES AND LEASE RENTAL PAYMENTS FROM THE GOVERNMENT-OWNED NORTHERN PETROLEUM RIGHTS. (THE \$4.5 BILLION WHICH THE FOUR PROVINCES HAVE COLLECTED IN ROYALTIES AND LEASE REVENUES IS INDICATIVE OF THE POTENTIAL);
3. PROVISION OF THE INCENTIVE WHICH IS ABSOLUTELY NECESSARY FOR THE RISK CAPITAL EXPENDITURE TO EXPLORE AND DEVELOP OUR POTENTIAL NORTHERN PETROLEUM RESOURCES;
4. A DYNAMIC AND BROAD-BASED STIMULATION OF THE CANADIAN ECONOMY AND NATIONAL EMPLOYMENT FLOWING FROM THE ACTIVITIES INVOLVED IN THE DEVELOPMENT AND UTILIZATION OF THIS RESOURCE. (IT HAS BEEN ESTIMATED THAT DEVELOPMENT AND UTILIZATION OF NORTHERN PETROLEUM RESOURCES WILL RESULT IN \$1.3 BILLION ANNUALLY IN ADDED VALUE TO THE CANADIAN ECONOMY);
5. THE GENERATION OF EARNINGS TO A GREAT NUMBER OF CANADIAN INVESTORS WHO WE ANTICIPATE WILL BE THE MAJORITY OWNERS OF THIS PIPELINE.

I RISK NO EXAGGERATION IF I TELL YOU THAT THESE OPPORTUNITIES WOULD BE SERIOUSLY JEOPARDIZED, OR AT LEAST DEFERRED FOR A LONG TIME, IF GAS FROM THE NORTH SLOPE OF ALASKA WERE TO BE UNAVAILABLE TO OUR PLANNED PIPELINE. AND THE POSSIBILITY OF THIS EXISTS. IT IS PROBABLY THE BIGGEST RISK FACING THE PROJECT.

SEVERAL MILLION DOLLARS IN FEASIBILITY STUDIES HAVE BEEN COMMITTED

BY EL PASO NATURAL GAS TO A CONTEMPLATED PIPELINE WHICH WOULD TRANSPORT NATURAL GAS FROM PRUDHOE BAY ACROSS ALASKA TO TIDEWATER ON THE PACIFIC COAST, WHERE THE GAS WOULD BE LIQUEFIED FOR SHIPMENT BY TANKER TO CALIFORNIA. WE DO NOT BELIEVE THAT THIS IS THE MOST ECONOMIC OR ADVANTAGEOUS WAY FOR THE UNITED STATES TO TAP ITS LARGE GAS RESERVES ON THE NORTH SLOPE, BUT IT COULD BE DONE -- AND IT DOES HAVE AT LEAST ONE POTENTIAL FROM THE U.S. VIEWPOINT. A U.S. TRANSPORTATION SYSTEM, AS OPPOSED TO A TRANSPORTATION SYSTEM ACROSS CANADA, WOULD INVOLVE LESS STRAIN ON THE U.S. BALANCE OF PAYMENTS. IF THIS WERE TO BE COUPLED WITH A LENGTHY DELAY FOR APPROVAL OF A PIPELINE ACROSS CANADA, THE UNITED STATES WOULD BE HARD PRESSED NOT TO PROCEED WITH THIS ALTERNATIVE. IT WOULD BE A MAJOR SETBACK IN THE DEVELOPMENT AND UTILIZATION OF OUR OWN NORTHERN PETROLEUM RESOURCES.

WE HAVE SEEN WHAT HAS HAPPENED IN THE UNITED STATES AS A RESULT OF INADEQUATE PLANNING TO MEET FUTURE ENERGY REQUIREMENTS. SOLVING ITS ENERGY SHORTAGE HAS BECOME A MATTER OF URGENT NATIONAL PRIORITY FOR THE UNITED STATES, AND PUBLISHED STATEMENTS HAVE SUGGESTED THAT THIS MAY TAKE AS LONG AS TWO DECADES TO ACCOMPLISH. GIVEN GOOD PLANNING AND ADEQUATE INCENTIVE TO FIND AND DEVELOP OUR POTENTIAL RESOURCES, THERE IS EVERY REASON FOR CONFIDENCE THAT CANADA CAN MAINTAIN, FOR ITS OWN NEEDS, ADEQUATE SUPPLIES OF OUR PRESENT FORMS OF ENERGY FOR A LONG TIME. IN OTHER WORDS, LET US NOT MAKE THE SAME ERRORS WHICH PRODUCED THE CURRENT ENERGY CRISES IN THE UNITED STATES.

WHEN WE EXAMINE THE CONCERNS WHICH HAVE BEEN EXPRESSED ABOUT THE

ARCTIC GAS PIPELINE, MOST OF THEM SEEM TO BOIL DOWN TO ONE MAJOR APPREHENSION: THAT A \$5 BILLION INVESTMENT IN THIS PROJECT, OR IN RESOURCE DEVELOPMENT IN GENERAL, WILL IN SOME MANNER OR ANOTHER, RESULT IN LESS EMPLOYMENT IN CANADA THAN WOULD RESULT FROM A SIMILAR INVESTMENT IN THE MANUFACTURING SECTOR.

IT IS TRUE THAT PIPELINES AND PRIMARY RESOURCES ARE CAPITAL INTENSIVE, AND THAT IN THEIR DIRECT OPERATIONS DO NOT EMPLOY AS MANY PEOPLE PER UNIT OF INVESTMENT AS, SAY, MANUFACTURING OR OTHER SEGMENTS OF INDUSTRY.

THIS, HOWEVER, REPRESENTS ONLY THE VISIBLE SURFACE. WHAT IS NOT SO APPARENT IS THAT THE INDIRECT EMPLOYMENT GENERATION RESULTING FROM PRIMARY RESOURCE INDUSTRY IS MUCH GREATER THAN IS THE CASE WITH MOST OTHER SECTORS OF THE ECONOMY. THUS WHEN YOU LOOK AT THE WHOLE PICTURE, THERE IS REALLY NOT MUCH TO CHOOSE FROM AS BETWEEN PRIMARY RESOURCES AND OTHER SECTORS OF THE ECONOMY.

THE REASON FOR THIS IS THE EXTENSIVE RANGE OF SUPPORTING SERVICES AND SUPPLIES, FLOWING THROUGHOUT THE ECONOMY, WHICH THE PRIMARY RESOURCE INDUSTRIES REQUIRE FOR THEIR OPERATION. THE EFFECT HAS BEEN DESCRIBED BY PROFESSOR ERIC HANSON OF THE UNIVERSITY OF ALBERTA, WHOM I QUOTE: "THE PETROLEUM INDUSTRY EMPLOYS A LARGE NUMBER OF WORKERS IN MANY WAYS. THEY ARE TO BE FOUND IN CONSTRUCTION, MANUFACTURING, PROCESSING, TRANSPORTATION, WHOLESALING, RETAILING, FINANCE, GOVERNMENTS AND IN PRACTICALLY ALL CATEGORIES OF THE LABOUR FORCE."

YOU CAN APPRECIATE THIS BY CONSIDERING THE TOTAL NUMBER OF JOBS

WHICH RELATE TO THE MAJOR TRANSMISSION PIPELINES WHICH TRANSPORT ALL OF THE OIL AND GAS PRODUCED IN ALBERTA. THESE PIPELINES REPRESENT A COMBINED GROSS INVESTMENT IN THE ORDER OF \$4 BILLION AND THEY EMPLOY SOME 3,500 PEOPLE. BUT DEPENDENT UPON THESE PIPELINES ARE THE JOBS OF MORE THAN 30,000 PEOPLE ENGAGED IN THE EXPLORATION AND PRODUCING ACTIVITIES OF THE OIL AND GAS INDUSTRY. BOTH DIRECTLY AND INDIRECTLY THERE ARE SOME 200,000 JOBS IN WESTERN CANADA DEPENDENT UPON THE PETROLEUM PRODUCING INDUSTRY. THIS DOES NOT INCLUDE THE JOBS WHICH RESULT FROM THE INDUSTRY'S PURCHASES OF MANUFACTURED MATERIALS FROM EASTERN CANADA, AMOUNTING TO \$10 BILLION SINCE 1947. NOR DOES IT INCLUDE THE REFINING, MARKETING OR PETROCHEMICAL OPERATIONS OF THE INDUSTRY.

I WOULD NOT PRETEND THAT THIS SIMPLISTIC EXERCISE REPRESENTS ANY DEFINITIVE PROJECTION OF TOTAL EMPLOYMENT GENERATION RESULTING FROM OUR PROJECT. WE WILL, IN DUE COURSE, HAVE SUCH A PROJECTION FROM DETAILED ECONOMIC IMPACT STUDIES CURRENTLY UNDERWAY. MEANWHILE, I AM SIMPLY TRYING TO DEMONSTRATE HOW MISLEADING ARE ASSERTIONS THAT ARCTIC GAS REPRESENTS A POTENTIAL \$5 BILLION INVESTMENT WHICH WILL CREATE ONLY SIX HUNDRED JOBS.

THE ECONOMIC IMPACT STUDIES ARE AN IMPORTANT ASPECT OF OUR STUDY PROGRAMS. WE ARE USING COMPUTER MODELS OF THE CANADIAN ECONOMY TO MEASURE THE POTENTIAL IMPACT OF THE PIPELINE, BOTH NATIONALLY AND REGIONALLY, IN TERMS OF SUCH FACTORS AS EMPLOYMENT, NATIONAL INCOME, GROSS NATIONAL PRODUCT, INFLATION, INTEREST RATES, BALANCE OF PAYMENTS, AND EXCHANGE VALUE OF THE CANADIAN DOLLAR. IN ORDER TO PROVIDE AS USEFUL AN ASSESSMENT AS POSSIBLE, WE ARE MAKING A WIDE RANGE OF MODEL PROJECTIONS BASED ON VARYING ASSUMPTIONS WHICH MUST BE MADE.

WHILE OUR STUDIES IN THIS AREA ARE NOT YET COMPLETED, I THOUGHT YOU MIGHT BE INTERESTED IN SOME OF THE PRELIMINARY INDICATIONS.

IN TERMS OF EMPLOYMENT GENERATION, THE PRELIMINARY RESULTS SUGGEST THAT TOTAL INCOME AND EMPLOYMENT IMPACT OF INVESTMENT IN THE PIPELINE WILL BE ON THE SAME ORDER OF MAGNITUDE AS INVESTMENT IN THE REST OF CANADIAN INDUSTRY.

THEY ALSO SUGGEST THAT THERE WOULD BE LITTLE EFFECT ON THE EXCHANGE RATE OF THE CANADIAN DOLLAR DURING THE PROJECTED 1975-1980 CONSTRUCTION PERIOD. THE DIRECT AND INDIRECT CHANGES IN CANADIAN IMPORTS, EXPORTS AND CAPITAL FLOWS WHICH WOULD RESULT FROM THE FINANCING AND CONSTRUCTION OF THE PIPELINE APPEAR TO COME VERY CLOSE TO BALANCING OUT DURING EACH YEAR OF THIS PERIOD.

BEYOND THE CONSTRUCTION PHASE, WE CALCULATE THAT OPERATION OF THE PIPELINE AND THE EXPORT OF CANADIAN GAS TO THE UNITED STATES MIGHT RESULT IN A CONTRIBUTION TO CANADA'S BALANCE OF PAYMENTS POSITION IN THE ORDER OF \$500 MILLION TO \$750 MILLION ANNUALLY.

CONSIDERING THAT CANADA'S TRADE POSITION DURING THE PAST 25 YEARS OR SO HAS BEEN PRIMARILY A DEFICIT POSITION, AND THAT FURTHER DEFICITS IN THE BALANCE OF CURRENT ACCOUNTS THROUGHOUT MOST OF THE REMAINDER OF THIS DECADE ARE FORECAST BY THE ECONOMIC COUNCIL OF CANADA, FOREIGN INCOME IN THE ORDER THAT I HAVE MENTIONED WOULD HARDLY APPEAR TO POSE A THREAT TO THE CANADIAN ECONOMY. INDEED, IT IS MORE LIKELY TO PROVIDE A SIGNIFICANT CONTRIBUTION TO OUR CURRENT ACCOUNT AND ECONOMIC WELL-BEING.

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WE BELIEVE THAT WE CAN SECURE MORE THAN HALF OF THE EQUITY OWNERSHIP OF THE ARCTIC GAS PIPELINE IN CANADA. OF THE \$5 BILLION REQUIRED CAPITAL, WE ANTICIPATE THAT ABOUT 20 PERCENT, OR \$1 BILLION WILL BE EQUITY CAPITAL. THE \$4 BILLION OF DEBT CAPITAL WILL COMPRISE A COMBINATION OF SUCH FORMS AS 20 OR 25-YEAR FIRST MORTGAGE BONDS, SOME JUNIOR DEBT MONEY WHICH MAY HAVE PROVISIONS FOR CONVERSION TO EQUITY, AND BANK LOANS. IN ADDITION TO MORE THAN HALF OF THE EQUITY CAPITAL, WE EXPECT THAT WE WILL ALSO BE ABLE TO RAISE A SUBSTANTIAL PORTION OF THE DEBT MONEY IN THE GROWING CANADIAN CAPITAL MARKET. OBVIOUSLY A VERY LARGE SEGMENT OF THE DEBT MONEY, AS WELL AS SOME OF THE EQUITY, WILL HAVE TO BE RAISED IN THE UNITED STATES. THE ONLY LIMITATION ON CANADIAN OWNERSHIP THAT WE FORESEE WILL BE THE AMOUNT OF FUNDS THAT CANADIAN INVESTORS CHOOSE TO INVEST IN THIS PROJECT.

THE ARCTIC GAS PIPELINE WILL REPRESENT A MAJOR DEVELOPMENT FOR CANADA. AS DETAILS OF THE PROJECT, RESULTING FROM OUR STUDIES, BECOME AVAILABLE, I EXPECT YOU WILL WANT TO ASSESS THIS THOROUGHLY. YOU WILL WANT TO DETERMINE WHETHER THIS IS AN ATTRACTIVE INVESTMENT FOR YOUR INDUSTRY; WHETHER IT WILL ENHANCE THE ECONOMIC INTERESTS OF THE 11 MILLION CANADIAN POLICYHOLDERS YOU REPRESENT; WHETHER IT IS GOOD FOR CANADA.

WHEN YOU HAVE ASSESSED THIS, IT SEEMS TO ME THAT THE INTERESTS OF YOUR POLICYHOLDERS AND THE INTERESTS OF CANADA, WOULD BE WELL SERVED IF YOU WERE TO PUBLICLY AND STRONGLY MAKE YOUR VIEWS KNOWN, AND, IF YOU CONCUR WITH US THAT ARCTIC GAS IS GOOD FOR CANADA, WE WILL WELCOME YOUR SUPPORT.

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